READING SAMPLE

PAPER - 9

Fill In The Blanks (Reading And Writing)

Passage 1:

Isotopic analysis is revolutionizing archaeology by offering insights into ancient diets, migrations, and environmental changes. Stable isotopes, unlike their radioactive counterparts, do not decay over time and are particularly useful in studying_____ (1) remains. Carbon and nitrogenisotopes in bones, for instance, reveal dietary patterns such as the_____ (2) of marine versus terrestrial food sources. Strontium isotopes, on the other hand, reflect the geological signature of the region where an individual lived, making them valuable for tracking_____ (3). These method shave helped researchers understand population movements in prehistoric Europe and dietary_____ (4) in Meso american cultures. Despite their potential, isotopic techniques require careful sampling, calibration, and interpretation, as values can be affected by environmental and physiological variables. As technology_____ (5), isotope geochemistry continues to deepen our understanding of the human past.

Options:

1. skull,fossil,organic, glass,magnetic
2. distribution, consumption, extinction, digestion, exclusion
3. adaptations, migrations, innovations, disruptions, evaluations
4. nutritional, ancient, temporary, artificial, visible
5. advances, declines,stagnates, reverses,limits

Passage 2:

Origami, the ancient art of paper folding,has found a surprising place in modern mathematical research. Mathematicians have developed complex algorithms to model folds and predictthe final shape of intricate origami designs. These algorithms are used in_____ (1) engineering problems, such as folding airbagsin cars
or solar panels on satellites. The mathematics behind origami primarily involves_____ (2) geometry and computational design.A key principle in origamimathematics is the_____ (3) theorem, which states that any flat-foldable crease pattern must satisfy specificangle constraints around each vertex.This has inspireda new field called computational origami, which merges artistic design with mathematical_____ (4).
Researchers are even studyinghow origami principles apply to DNA folding and protein structures. As our need for compact, flexible designs_____ (5), origami mathematics is becoming increasingly relevant in scientific and engineering contexts.

Options:

1. practical, abstract, artificial, outdated, corporate
2. discrete, linear, elliptical, binary, static
3. Kawasaki's,Pythagorean, Euler's, Pascal's, Newton's
4. success, proof, theory,intuition, application
5. grows, applies, intensifies, spreads, collapses

Passage 3:

The rise of deep-seamining poses significant ethical questions for environmental sustainability. Proponents argue it couldprovide access to rare earthmetals needed for green technologies. However, critics highlight the (1) state of knowledge about deep-sea ecosystems and the potentialfor irreversible harm. Mining operations can disturb the ocean floor, create sediment plumes, and threaten species yet to be_____ (2). The debate has led to calls for a_____ (3) framework to govern international waters. While some countries push for exploratory mining permits, others advocate for a_____ (4) until more ecological data becomes available. The dilemma illustrates a broader tension between economic interests and environmental_____ (5).

Options:

1. unknown, identified, reconstructed, evolved, discovered
2. discovered, interpreted, cloned, vanished, mapped
3. legislative, lenient, technical, flexible, industrial
4. moratorium,sprint, funding, reduction, guideline
5. protection, accountability, urgency, justice, resilience

Passage 4:

The digital nomad lifestyle—where individuals use technology to work remotely while traveling—has gained momentum in the last decade. Sociologists are beginning to study how this phenomenon affects identity, community, and labor. Digital nomads often seek_____ (1) independence and cultural immersion, but their transient lifestyle challenges traditional_____ (2) of work and home. Online forumsand co-working spaces serve as hubs of____ (3), but critics argue that digital nomadism may also reinforce economic and cultural _____ (4), especially in developing nations where nomads relocate without integrating. The long-term implications of this lifestyle remain uncertain, prompting scholars to_____ (5) how digital labor reshapes global social structures.

Options:

1. mobility, uncertainty, boredom, opportunity, routine
2. definitions,limitations,benefits, protections, stereotypes
3. networks, regulations, architecture, advertising, systems
4. privilege, polarization, safety, literacy,unity
5. investigate, ignore,celebrate, amplify, institutionalize

Passage 5:

Epigenetics refers to the study of heritable changes in gene expression that do not involve alterations to the DNA sequence itself. Thesechanges are triggered by factors such as stress, nutrition, and the environment. One common epigenetic mechanism is DNA_____ (1),

where methyl groups are added to genes, effectively turning them off. Recent research suggeststhat epigenetic changescan be passed on to future generations, challenging classical notions of inheritance. While still controversial, studies in mice and humans indicate that certain epigenetic markers may survive the reproductive process. This raises important_____ (2) for disease prevention, as lifestyle choices could potentially affect descendants. Scientists are now exploring how early- life experiences influence_____ (3) patterns that regulate development and behavior. Despiteexcitement, muchremains unknown. The field facesmethodological challenges in isolating environmental influences and differentiating them from genetic factors. As our understanding grows, epigeneticsmay reshape medical and _____(4) practices, emphasizing prevention over_____ (5).

Options:

1. methylation, reduction, compression, stimulation, fragmentation
2. implications, doubts, repetitions, traditions, terminologies
3. transcription, mutation, migration, expression, respiration
4. educational, legal, industrial,spatial, psychological
5. treatment, adaptation, elimination, resistance, detection

Multiple Choice – Multiple Answers Question 1:

The Arctic tundrais one of the coldestand least biodiverse ecosystems, yet it plays a key role in global climate regulation. Its permafrost stores massive amounts of carbon, and warming temperatures risk releasing this carbon into the atmosphere. Human activities, including oil exploration and infrastructure expansion, threaten this fragile biome. If the permafrost thaws, it could release greenhouse gases like methaneand carbon dioxide,accelerating climate change. This feedback loop may have far-reaching effectson global weatherpatterns and sea levels. Melting ice also impacts nativespecies, such as polar bearsand caribou, disrupting their habitats. Traditional Indigenous communities that rely on the tundra's ecosystems are facing unprecedented challenges. Biodiversity loss in this region can affect ecological balance across the Northern Hemisphere. International cooperation is essential to monitor and mitigate the damage. Protecting the Arctic tundrais not just an environmental issue; it's a global responsibility.

Question: Which of the following are true about the Arctic tundra?

Options:

A. It stores a significant amount of carbon
B. It supportsa wide range of tropicalspecies
C. It is highly sensitive to temperaturechanges
D. It benefits from industrial development
E. Itis threatened by human activities

Question 2:

Water scarcity is not just a natural issue but a socioeconomic one. Poor infrastructure, political instability, and inefficient usage all contribute to water crises. In some regions, water is more expensive than gasoline. Economists argue for better pricing mechanisms and investment in sustainable water systems. Climate change further exacerbates the problem by altering rainfallpatterns and increasing drought frequency. Rural and marginalized communities are often hit hardest, lacking reliableaccess to clean water. Conflicts over water rights are rising, especially in transboundary river basins. Urbanization is placing additional stress on already overburdened water supplies. Education on water conservation can empower individuals to make impactful changes. Technological innovations like desalination and wastewater recycling offer promising solutions. Global collaboration is essential to ensure water security for future generations.

Question: Which factors are mentioned as contributing to water scarcity?

Options:

A. High rainfall
B. Inefficient usage
C. Politicalinstability
D. Overfishing
E. Poor infrastructure Reorder Paragraphs Question 1:

A. Over time,glassmaking spread throughthe Roman Empireand beyond.
B. Ancient Mesopotamians were among the first to develop glass objects.
C. Innovations such as glass-blowing transformed the industry.
D. Initially, glass was a luxuryitem for the elite.
E. Today,glass is used in architecture, medicine, and technology.

Question 2:

A. Advances in DNA analysisfurther improved conviction accuracy.
B. Earlyforensic techniques relied on fingerprint identification.
C. Modern forensics emerged in the 20th century.
D. Forensics now includes digitalevidence and facialrecognition.
E. These tools have transformed criminal investigations.

Reading: Fill in the Blanks Passage 1

Citizen science involves public participation in scientific research, where volunteers collect or analyze data. This model has been used in_____ (1) studies, astronomyprojects, and biodiversity surveys.With the _____ (2) of mobile technology,citizens can easily share observations in real-time. Projects like bird counts and weather tracking help researchers gather_____ (3) data acrosswide areas. These initiatives also promote scientific_____ (4) andengagement among the general population. Options: adoption, opposition, rejection, biodiversity, experimental, anecdotal, longitudinal, regional, literacy,

Passage 2:

Photovoltaic (PV) cells, which convertsunlight into electricity, are at the heart of solar powertechnology. Traditional silicon-based cellsdominate the market,but new materials such as perovskites are showing great _____(1). These materials can be manufactured with less energy and may offer higher_____ (2)in low-light conditions. However, challenges such asstability and_____ (3) to moisture remain. Researchersare working to enhance durability throughencapsulation techniques and hybrid materialblends. As governments aim for carbon neutrality, innovations in PV technology are expected to play a_____ (4) role in reshaping the global energy grid.

Options: potential, delay, resistance, efficiency, affection, vulnerability, critical, passive

Passage 3:

Metacognition refers to the awareness and regulation of one's own thinking processes. It enables learners to monitor their understanding and_____ (1) their learning strategies. For example, when a student realizes they didn't grasp a conceptand decides to reread a section, they are exercising metacognitive control. Educators promote metacognition by encouraging_____ (2),questioning, and self-assessment in the classroom. It plays a key role in academic successbecause it fosters_____ (3) learning habits. Students who develop these skills are more likely to persist through challenges and exhibit higher levels of_____ (4).

Options: revise, ignore, simplify, reflection, independent, motivation, discipline, distress,

Passage 4:

Coral reefs are amongthe most biologically diverse ecosystems on the planet.However, they are highly sensitive to changes in the ocean (1). When water becomestoo warm, corals expel the algae living in their tissues, leading to bleaching—a process that weakensor kills the reef. Bleachingevents have become more_____ (2) due to climate change.Efforts to protectcoral reefs includemarine protected areas, reef _____(3) programs, and global agreements to reduce carbonemissions. Scientists also study_____ (4) species that show resilience to warming waters, hoping to understand mechanisms of adaptation better.

Options: currents, temperature, frequent, occasional, restoration, invention, robust,

Multiple Choice – Single Answer Question 1:

Despitethe rise of digital readingdevices, printed booksremain popular amongmany readers. Studiesshow that people tend to retaininformation better when reading from paper comparedto screens. Additionally, physical books offer a sensory experience—such as the feel of pages and the smell of ink—that e-books cannot replicate. Printedbooks also reduceeye strain and eliminate the distractions oftenpresent on digital devices. Many readers find joy in building personallibraries and collecting special editions. Bookscan be easily shared,gifted, or donated,extending their life and reach.In classrooms, printed textbooksare still widely used for their durability and ease of annotation. Book-stores and libraries serve as important community hubs centered around physical books. Unlike electronic devices, printed books require no batteries or power sources. For many, the act of turning a page adds to the rhythm and satisfaction of reading.

Question: According to the passage, what is one reason printed books remain popular?

Options:

A. The yare cheaper than e-books.

B. They are more durable than digital devices.

C. They improvereading comprehension and offer a sensory experience.

D. They take up less space than e-books.

Question 2:

Cryo preservation involves cooling cells and tissues to sub-zero temperatures to halt all biological activity. It's widely used to preserve sperm, eggs, and embryos for fertility treatments. In recent years, scientists have also explored its use for organ transplantation and long-term biological storage. This technique helps extend the viability of biological materials that would otherwise degrade quickly. Vitrification, a rapid freezing method, has improved survival rates of preserved cells.Cryo preservation plays a crucial role in biodiversity conservation through seed and genetic banks.Researchers are investigating its potential in preserving endangered species and rare cell lines. Challenges remain in preventing ice crystal formation, which can damage cellular structures. Successful cryo preservation of whole organs could revolutionize transplant medicine. As the science advances, ethical and legal questions about storage duration and ownership are emerging.

Question: What is the main benefit of cryo preservation mentioned in the passage?

Options:

A. It canreverse aging.

B. It keepstissues biologically active.

C. It reducesthe cost of medical treatment.

D. It preventsbiological activity, preserving tissues for future use.

Correct Answers

Reading &Writing: Fill in the Blanks

1. organic, consumption, migrations, adaptations, advances
2. practical,discreet, Kawasaki's, application, grows
3. unknown, discovered, legislative, moratorium, protection
4. mobility, definitions,networks, privilege, investigate
5. methylation, implications, expression, educational, treatment

Multiple Choice – Multiple Answers

1. A,C, E
2. B, C, E

Reorder Paragraphs

1. B - D - A - C - E
2. B - C - A - D - E

Reading: Fill in the Blanks

1. biodiversity,adoption, regional, literacy
2. potential, efficiency, vulnerability, critical
3. revise, reflection, independent, motivation
4. temperature, frequent, restoration,robust

Multiple Choice – Single Answer

1. C
2. D